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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,767	05/27/2005	Masakazu Baba	Q88071	4363

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EXAMINER	
RINEHART, KENNETH	

ART UNIT	PAPER NUMBER
3749	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/536,767	BABA ET AL.	
	Examiner	Art Unit	
	Kenneth B. Rinehart	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 May 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Canon (06-010900). Canon shows a channel for a sample flowing in said channel (2, fig. 2), a sample drying area, disposed at an end of said channel and having an opening communicating with said channel (3, fig. 1); wherein said sample drying area comprises a fine channel narrower than said channel (1, fig. 1) and wherein said fine channel has a width such that liquid is drawn therethrough by capillary action (constitution), a sample holder (fig. 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canon (06-010900) in view of Apffel (5705813). Canon discloses a channel for a sample flowing in said channel (2, fig. 2), a sample drying area, disposed at an end of said channel and having an opening communicating with said channel (3, fig. 1); wherein said sample drying area comprises a fine channel narrower than said channel (1, fig. 1) and wherein said fine channel has a width

such that liquid is drawn therethrough by capillary action (constitution)., a sample holder (fig. 2). Canon discloses applicant's invention substantially as claimed with the exception of wherein said sample drying area is filled with multiple particles, wherein said sample drying area is filled with a porous material. Apffel teaches said sample drying area is filled with multiple particles, wherein said sample drying area is filled with a porous material, sample holder (col. 6, line 32, col. 5, line 5-15, col. 4, lines 1-5, col. 4, lines 19-24) for the purpose of performing mass spectrometry. It would have been obvious to one of ordinary skill in the art to modify Canon by including said sample drying area is filled with multiple particles, wherein said sample drying area is filled with a porous material as taught by Apffel for the purpose of performing mass spectrometry to facilitate the analysis of the sample.

Claim 2-4 are rejected under 35 U.S.C. 102(a) as being anticipated by Sano et al in view of Canon . Sano et al discloses a channel for a sample flowing in said channel, a main channel for a sample flowing in said main channel (Area where strip and space labels found, fig. 1); wherein said sample drying area comprises a fine channel narrower than said channel, a plurality of side channels branched from said main channel; and (Space, fig. 1), a sample ... area communicating with said side channels, wherein said sample drying area has a fine channel narrower than said side channels (gap, fig. 1), wherein said sample contains multiple components and said main channel comprises a separating portion to separate said components (small molecule, large molecule, fig. 1), said sample ... area comprises a plurality of protrusions separated each other (fig. 1). Sano et al discloses applicant's invention substantially as claimed with the exception of disposed at an end of said side channels, capillary action, drying. Canon teaches disposed at an end of said side channels, capillary action, drying (constitution and

figures) for the purpose of eliminating pulsations in the flow of the sample. It would have been obvious to one of ordinary skill in the art to modify Sano by including disposed at an end of said side channels, capillary action as taught by Canon for the purpose of eliminating pulsations in the flow of the sample to provide for better analysis of the sample.

Claims 5, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canon in view of Pare et al. Canon shows a channel for a sample flowing in said channel (2, fig. 2), a sample drying area, disposed at an end of said channel and having an opening communicating with said channel (3, fig. 1); wherein said sample drying area comprises a fine channel narrower than said channel (1, fig. 1) and wherein said fine channel has a width such that liquid is drawn therethrough by capillary action (constitution), a sample holder (fig. 2). Canon discloses applicant's invention substantially as claimed with the exception of wherein said sample drying area has a lid comprising a fine channel communicating with said outside of said sample drying device, wherein said sample drying device comprises a temperature controller for controlling a temperature of said sample drying area. Pare teaches wherein said sample drying area has a lid comprising a fine channel communicating with said outside of said sample drying device, wherein said sample drying device comprises a temperature controller for controlling a temperature of said sample drying area (col. 12, lines 11-15, fig. 3) for the purpose of removing liquid. It would have been obvious to one of ordinary skill in the art to modify Canon et al by including wherein said sample drying area has a lid comprising a fine channel communicating with said outside of said sample drying device, wherein said sample drying device comprises a temperature controller for controlling a temperature of said sample drying area as taught by Pare for the purpose of removing liquid in order to perform analysis on the substance. Canon et al in

view of Pare discloses the claimed invention except for wherein said drying area has a shape so that the top of said sample drying area projects from said opening. It would have been an obvious matter of design choice to extend the projections, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano in view of Canon as applied to claims 2 and 3 above, and further in view of Apfel. Sano in view of Canon discloses applicant's invention substantially as claimed with the exception of wherein said sample drying area is filled with multiple particles, wherein said sample drying area is filled with a porous material. Apffel teaches said sample drying area is filled with multiple particles, wherein said sample drying area is filled with a porous material, sample holder (col. 6, line 32, col. 5, line 5-15, col. 4, lines 1-5, col. 4, lines 19-24) for the purpose of performing mass spectrometry. It would have been obvious to one of ordinary skill in the art to modify Canon by including said sample drying area is filled with multiple particles, wherein said sample drying area is filled with a porous material as taught by Apffel for the purpose of performing mass spectrometry to facilitate the analysis of the sample.

Claims 5, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al in view of Canon as applied to claim 2,3 4 above, and further in view of Pare et al. Sano et al in view of Canon discloses applicant's invention substantially as claimed with the exception of wherein said sample drying area has a lid comprising a fine channel communicating with said outside of said sample drying device, wherein said sample drying device comprises a temperature controller for controlling a temperature of said sample drying area. Pare teaches

wherein said sample drying area has a lid comprising a fine channel communicating with said outside of said sample drying device, wherein said sample drying device comprises a temperature controller for controlling a temperature of said sample drying area (col. 12, lines 11-15, fig. 3) for the purpose of removing liquid. It would have been obvious to one of ordinary skill in the art to modify Sano et al by including wherein said sample drying area has a lid comprising a fine channel communicating with said outside of said sample drying device, wherein said sample drying device comprises a temperature controller for controlling a temperature of said sample drying area as taught by Pare for the purpose of removing liquid in order to perform analysis on the substance. Sano et al in view of Pare discloses the claimed invention except for wherein said drying area has a shape so that the top of said sample drying area projects from said opening. It would have been an obvious matter of design choice to extend the projections, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al in view of Canon as applied to claim 2 or 3 above, and further in view of Apfel. Sano discloses separating unit(fig. 1). Sano et al in view of Canon discloses applicant's invention substantially as claimed with the exception of sample holder, pretreatment unit, drying unit, mass spectrometry. Apffel teaches drying (col. 4, lines 1-3), sample holder (col. 6, line 32, col. 5, line 5-15, col. 4, lines 1-5, col. 4, lines 19-24), pretreatment unit (col. 4, line 32), drying unit (col. 4,line 1-3, mass spectrometry (col. 3, lines 50-56) for the purpose of performing mass

spectrometry. It would have been obvious to one of ordinary skill in the art to modify Sano by including sample holder, pretreatment unit, drying unit, mass spectrometry as taught by Apffel for the purpose of performing mass spectrometry to facilitate the analysis of the sample.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canon in view of Apfel. Canon (06-010900) shows a channel for a sample flowing in said channel (2, fig. 2), a sample drying area, disposed at an end of said channel and having an opening communicating with said channel (3, fig. 1); wherein said sample drying area comprises a fine channel narrower than said channel (1, fig. 1) and wherein said fine channel has a width such that liquid is drawn therethrough by capillary action (constitution), a sample holder (fig. 2). Canon discloses applicant's invention substantially as claimed with the exception of sample holder, pretreatment unit, drying unit, mass spectrometry. Apffel teaches drying (col. 4, lines 1-3), sample holder (col. 6, line 32, col. 5, line 5-15, col. 4, lines 1-5, col. 4, lines 19-24), pretreatment unit (col. 4, line 32), drying unit (col. 4,line 1-3, mass spectrometry (col. 3, lines 50-56) for the purpose of performing mass spectrometry. It would have been obvious to one of ordinary skill in the art to modify Canon by including sample holder, pretreatment unit, drying unit, mass spectrometry as taught by Apffel for the purpose of performing mass spectrometry to facilitate the analysis of the sample.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B. Rinehart whose telephone number is 571-272-4881. The examiner can normally be reached on 7:20 -4:20.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kbr

KENNETH RINEHART
PRIMARY EXAMINER